

IN THE CLAIMS

1. (Original) An antibody that binds specifically to a polypeptide comprising an ubiquitination-regulating domain.
2. (Original) The antibody of Claim 1, wherein said ubiquitination-regulating domain is an ubiquitination-regulating domain, or a functional fragment thereof, of a TSG101 protein.
3. (Original) The antibody of Claim 2, wherein said TSG101 protein is a human TSG101 protein.
4. (Original) The antibody of Claim 3, wherein said ubiquitination-regulating domain comprises amino acid residues 50-140 of said human TSG101 protein.
5. (Original) The antibody of Claim 3, wherein said ubiquitination-regulating domain comprises amino acid residues 1-140 of said human TSG101 protein.
6. (Original) The antibody of Claim 3, wherein said ubiquitination-regulating domain comprises amino acid residues 140-250 of said human TSG101 protein.
7. (Original) A method of producing an antibody that binds specifically to an ubiquitination-regulating domain, comprising raising said antibody against a polypeptide comprising said ubiquitination-regulating domain.
8. (Original) The method of Claim 7, wherein said ubiquitination-regulating domain is a ubiquitination-regulating domain, or a functional fragment thereof, of a TSG101 protein.
9. (Original) The method of Claim 8, wherein said TSG101 protein is a human TSG101 protein.
10. (Original) The method of Claim 9, wherein said ubiquitination-regulating domain comprises amino acid residues 50-140 of said human TSG101 protein.

11. (Original) The method of Claim 8, wherein said ubiquitination-regulating domain comprises amino acid residues 1-140 of said human TSG101 protein.

12. (Original) The method of Claim 9, wherein said ubiquitination-regulating domain comprises amino acid residues 140-250 of said human TSG101 protein.

13. (Original) A method of treating a condition in a subject, said condition resulting from a change in a level of MDM2 protein in cells of said subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent comprising an ubiquitination-regulating domain.

14. (Original) A method of treating a condition in a subject, said condition resulting from a change in a level of a TSG101 protein in cells of said subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent modulating the interaction of said TSG101 protein with MDM2.

15. (Original) A method for treatment of a proliferative disease in a subject comprising:

- (a) monitoring the subject for a level of p53; and
- (b) treating the subject with an agent so as to maintain said level of p53 within a target range, wherein said agent comprises an ubiquitination-regulating domain.

16. (Original) A method for treatment of a proliferative disease in a subject comprising:

- (a) monitoring the subject for a level of TSG101; and
- (b) treating the subject with an agent so as to maintain said level of TSG101 within a target range, wherein said agent modulates the interaction of said TSG101 with MDM2.

17-21 (Canceled)

22. (Original) A method for treating a proliferative disease in a subject, said method comprising administering to said subject a therapeutically effective amount of an agent, said agent modulating the interaction of a TSG101 protein with MDM2.

23. (Original) A cell comprising a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence such that said cell expresses said ubiquitination-regulating domain.

24. (Original) A cell comprising (i) a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence; and (ii) a polynucleotide encoding MDM2 protein operationally linked to a regulatory sequence, such that said cell expresses said ubiquitination-regulating domain and said MDM2 protein.

25. (Original) A cell comprising (i) a polynucleotide encoding an ubiquitination-regulating domain operationally linked to a regulatory sequence; (ii) a polynucleotide encoding MDM2 protein operationally linked to a regulatory sequence; and (iii) a polynucleotide encoding p53 protein operationally linked to a regulatory sequence, such that said cell expresses said ubiquitination-regulating domain, said MDM2 protein, and said p53 protein.

26-30 (Canceled)

31. (Original) A method of identifying an agent that modulates the interaction of a TSG101 protein with MDM2, comprising screening candidate agents using a screening assay comprising a cell expressing MDM2 and a polypeptide comprising an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein.

32.* (Original) A method of identifying an agent that is capable of modulating the interaction of a TSG101 protein with MDM2, comprising:

- (a) contacting a first cell expressing MDM2 and a polypeptide comprising an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein with said agent and measuring MDM2 level in said first cell;
- (b) contacting a second cell expressing MDM2 but not an ubiquitination-regulating domain, or a functional fragment thereof, of said TSG101 protein, with said agent and measuring MDM2 level in said second cell; and
- (c) comparing MDM2 levels measured in (a) and (b),

wherein a difference in MDM2 levels compared in step (c) identifies said agent as capable of modulating the interaction of the TSG101 protein with MDM2.

33-36 (Canceled).

37. (Original) A method of modulating a level of MDM2 in a cell, comprising contacting said cell with a polypeptide or derivative thereof that comprises a polypeptide comprising a polypeptide comprising an ubiquitination-regulating domain.

38. (Original) A method of modulating a level of p53 in a cell, comprising contacting said cell with a polypeptide or derivative thereof that comprises a polypeptide comprising an ubiquitination-regulating domain.

39. (Original) A method of modulating a level of TSG101 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

40.⁴ (Original) A method of modulating a level of MDM2 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

41. (Original) A method of modulating a level of p53 in a cell, comprising contacting said cell with an agent that is capable of modulating the interaction of a TSG101 protein with MDM2.

42. (Original) A method for screening for a cellular protein that interacts with an ubiquitination-regulating domain, comprising identifying a cellular protein that binds said ubiquitination-regulating domain.

43. (New) A pharmaceutical composition for treatment of diseases involving TSG101-mediated ubiquitination, comprising:

an antibody that binds specifically to an ubiquitination-regulating domain, or a functional fragment thereof, of a TSG101 protein; and
a pharmaceutically acceptable excipient.

44. (New) A method for treatment of diseases involving TSG101-mediated ubiquitination, said method comprising:

administering to a subject suffering from a disease involving TSG101-mediated ubiquitination an effective amount of the pharmaceutical composition of Claim 43.

45. (New) The method of Claim 44, wherein the diseases involving TSG101-mediated ubiquitination comprise proliferative diseases, neurodegenerative diseases, autoimmune diseases, and developmental abnormalities.